

Flight Scientist Report
Tuesday 02/15/2022 ACTIVATE RF120

Flight Type: Statistical Survey Flight
Flight Route: KLF-ECG-OXANA-3245N07145W-OXANA-ECG-KLF
Special Notes: First of 2 flights today.

King Air

Pilot report (Wusk):

First flight of a double flight day. Joint with HU25. KLF-ECG-OXANA-3245N07145W-OXANA-ECG-KLF Take off from Rwy 08 after the HU25. Good ATC, flew route as planned, relay radio comms for HU. Sondes dropped as planned. Good spatial coordination despite strong winds at altitude. Start descent about 15 SE of ECG. VISUAL appr to Rwy 08. quick turn to make a 1315 planned second takeoff.

Flight scientist report (Seaman):

Takeoff time: 13:34:04 UTC

Landing time: 17:06:089 UTC

All instruments operated nominally.

Dropped 4 sondes on track:

1. OXANA
2. TURN
3. Halfway between TURN and OXANA on return leg.
4. Coast

Falcon

Pilot report (Slover):

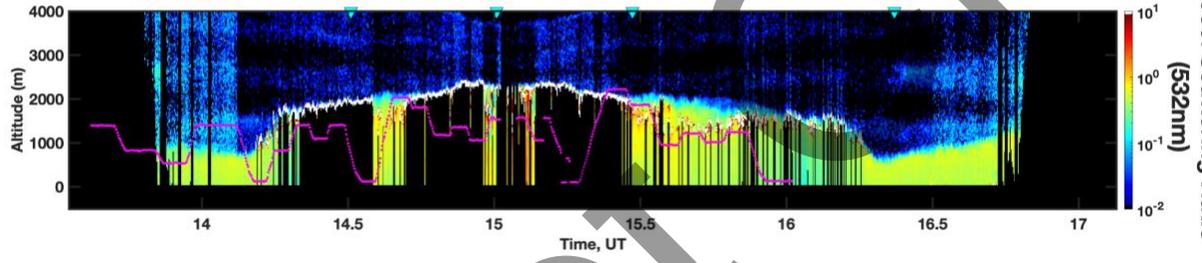
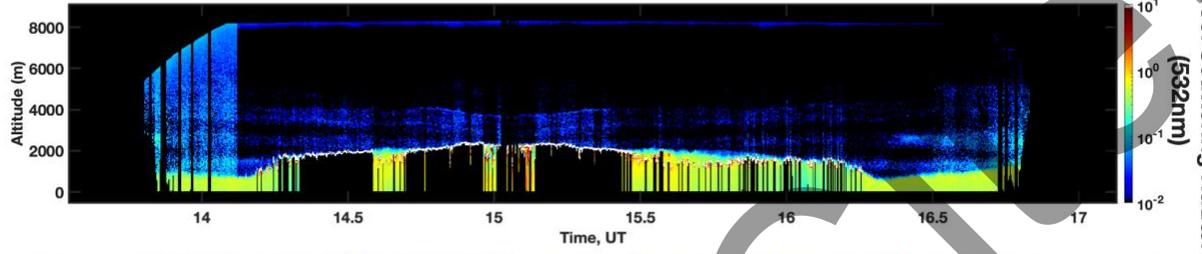
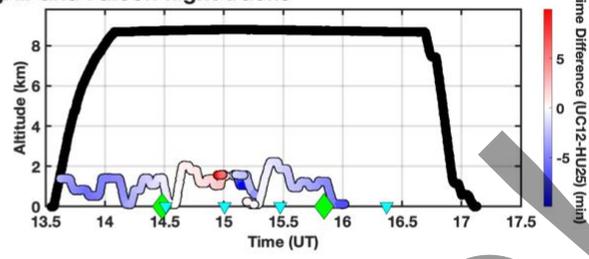
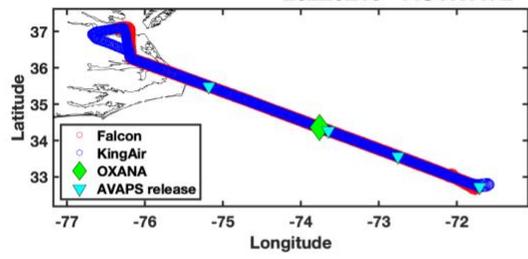
Flown as planned from KLF ECG OXANA 3245N07145W OXANA ECG KLF. Good statistical survey day with clouds from 3000' to 6000' MSL.

Flight scientist report (Crosbie):

Stat survey OXANA-SE. Cloudy conditions began shortly after crossing the OBX. The clouds were initially small Cu and progressively became thicker and higher coverage forming an overcast. There was a thinning of the clouds just outbound of OXANA and then the clouds started to take on more mesoscale organization with thicker regions. The Cu were feeding an upper stratiform layer near the inversion. In the thicker cloud regions, some mixed phase and precipitation was observed with subcloud drizzle below the melting level. On the return leg, the clouds had broken up somewhat, especially inbound of OXANA. There was elevated aerosol near the coast and during the overland survey.

Do Not Cite!

20220215 - ACTIVATE - KingAir and Falcon flight tracks



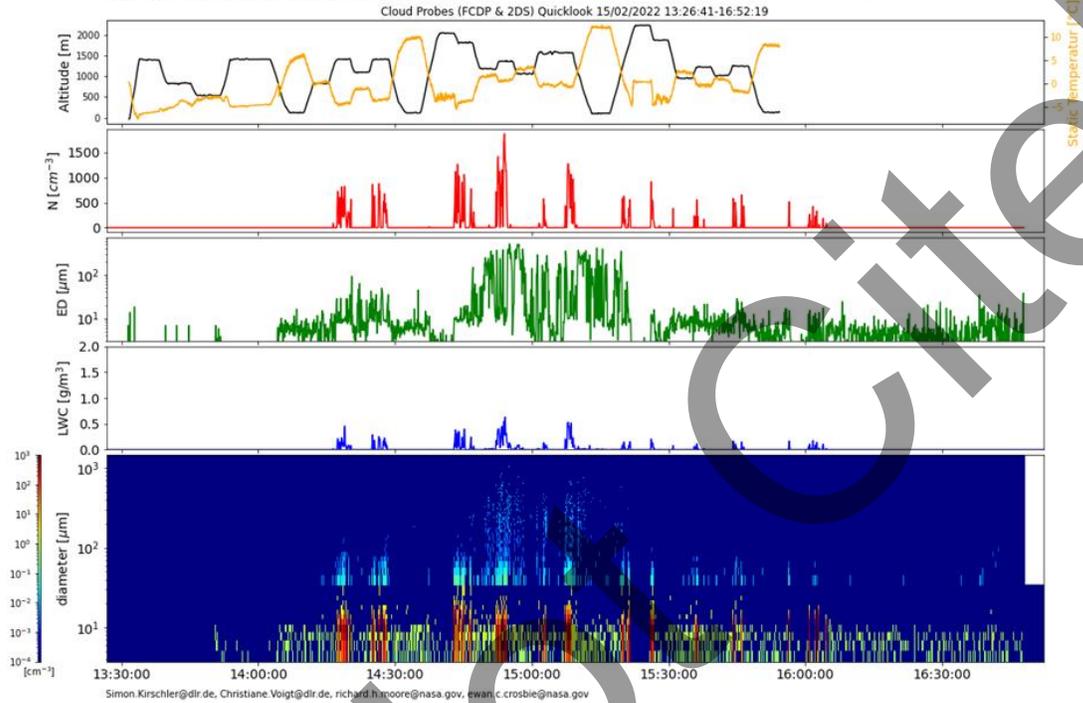
Aerosol Scattering Ratio (532nm)

DO NOT

Quicklook ACTIVATE Cloud Probes (FCDP & 2DS) Quicklook

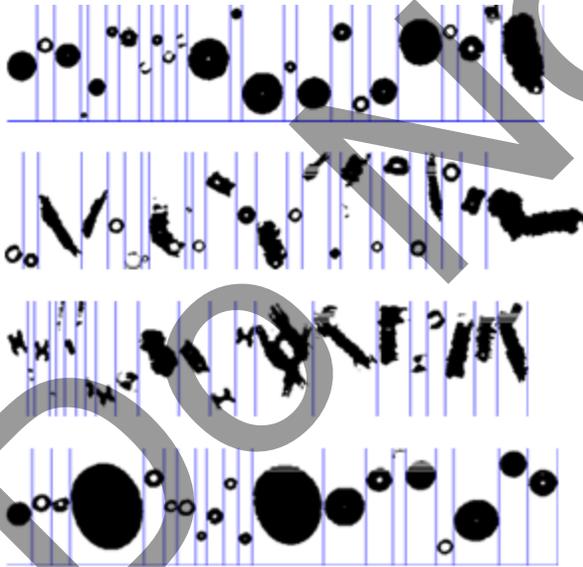
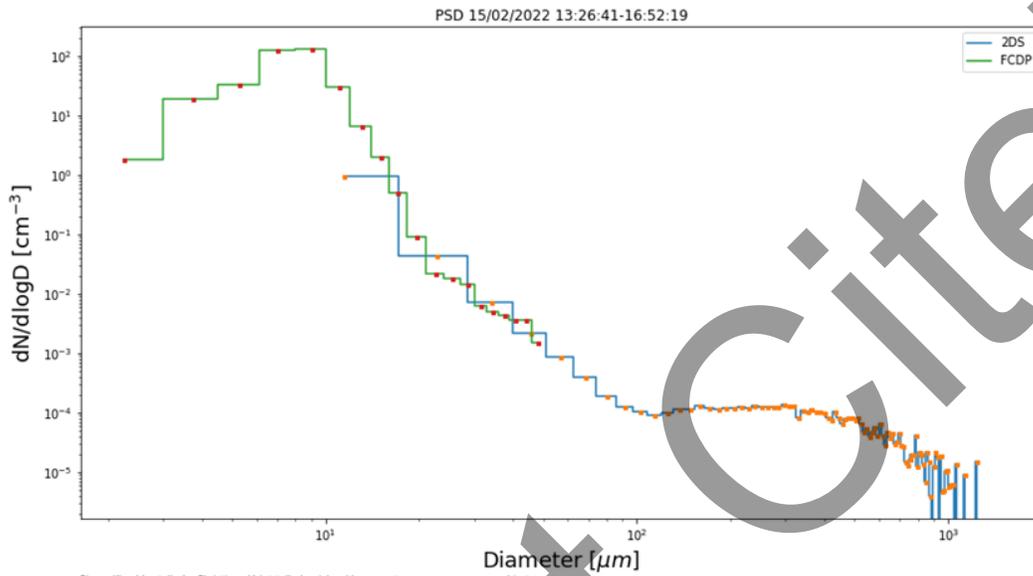
preliminary data, only for quicklook use

Simon Kirschler, Christiane Voigt, Richard Moore, Ewan Crosbie



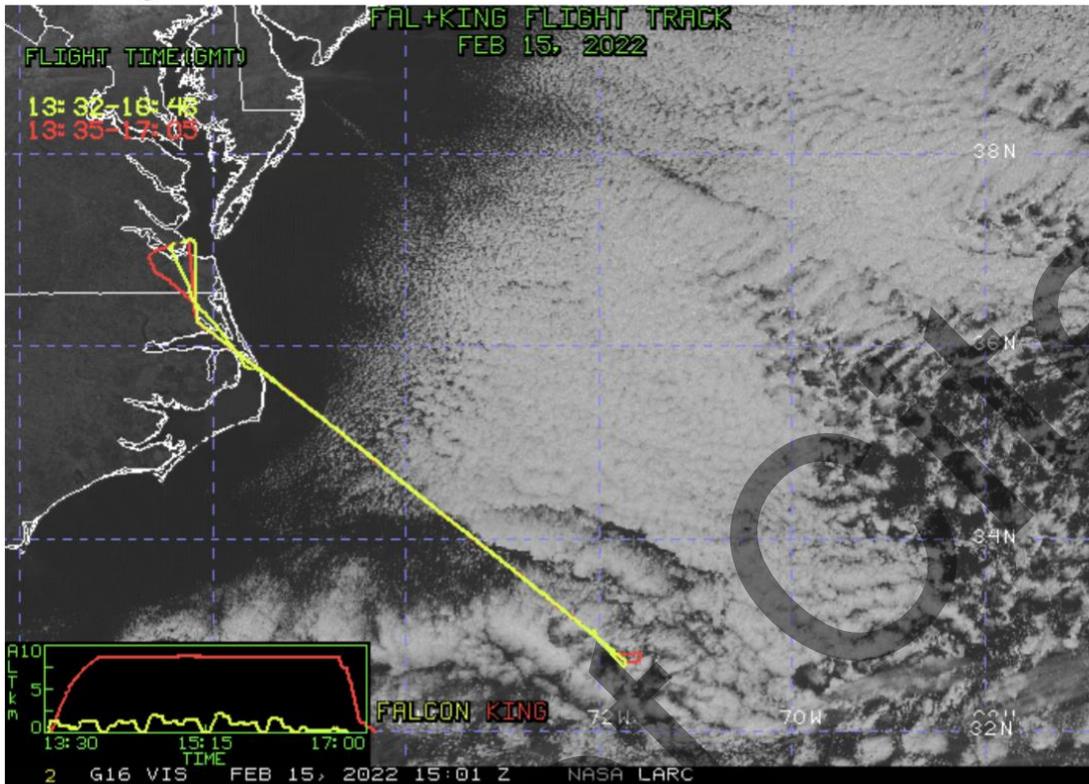
PSD ACTIVATE

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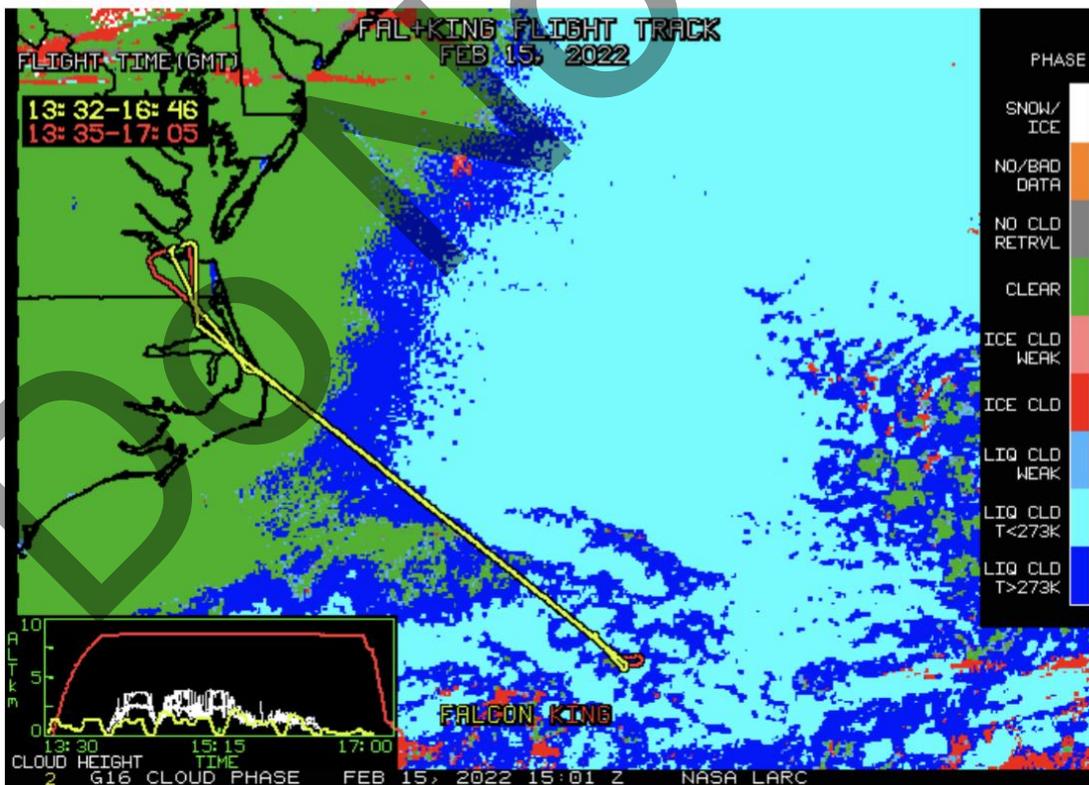


Mixed phase clouds with ice and liquid
Precip.

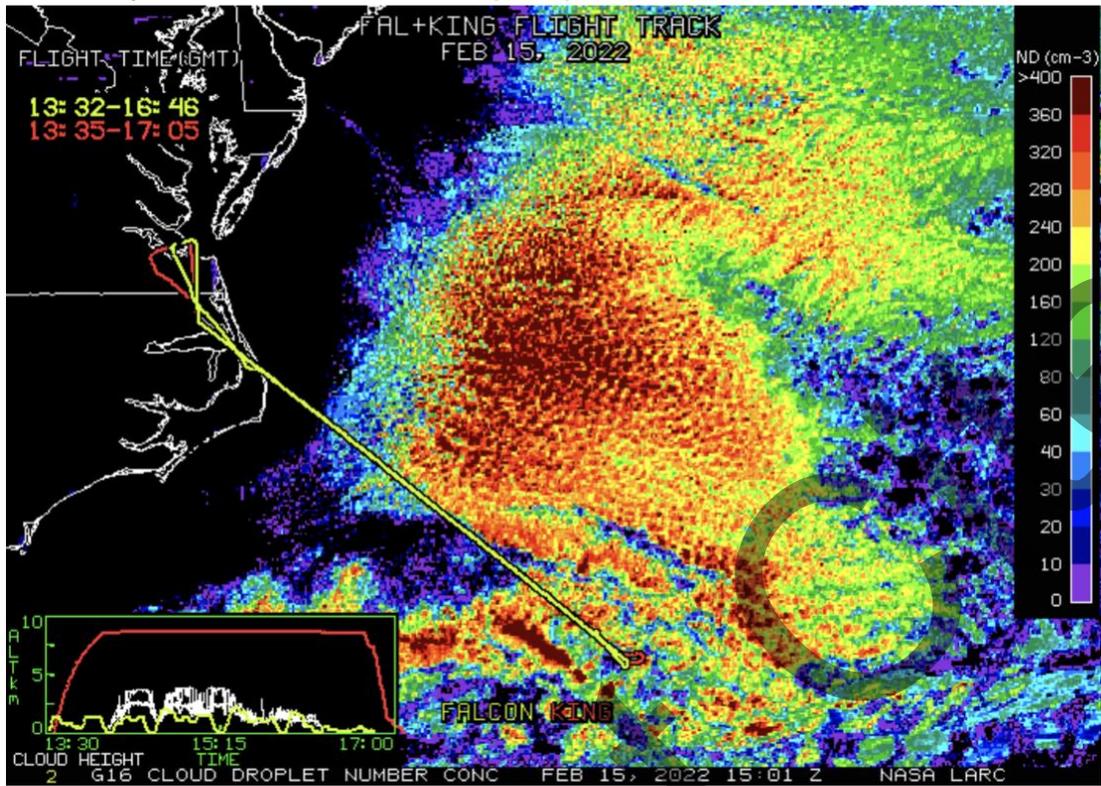
NASA-LaRC Clouds Group GOES-16 Quicklook Images for Flight 120, 15:01 UTC Feb 15, 2022
Visible Image



Cloud Phase



Cloud Droplet Number Concentration (cm-3)



Cloud-Top Height (Kft-ASL)

